

S/081/63/000/004/018/051
B166/B186

AUTHORS: Kalabina, A. V., Filippova, A. Kh., Akserenko, R. A.,
Latysheva, E. S., Vinogradova, V. V., Zhidyayeva, L. M.

TITLE: Studies in the field of synthesis and conversions of vinylaryl
esters. No. 22. Synthesis and certain conversions of vinyl
esters and acetals of bromophenols

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1963, 238 - 239, ab-
stract 4Zh123 (Izv. Fiz.-khim. n.-i. in-ta pri Irkutskom un-te,
v. 5, no. 1, 1961, 120 - 130)

TEXT: Vinylation of 2-bromophenol (I) and 4-bromophenol (II) by the Favor-
skiy - Shostakovskiy method (initial pressure of acetylene 18 - 28 atm
210 - 220°C, 30 - 45 min) in the presence of a large quantity of KOH or NaOH
and with high dilution of the reaction mixture with water (sometimes with
dioxane added) made possible the synthesis of the vinyl ester of I, yield
40%, b.p. 93 - 94°C/8 mm Hg, n_D^{20} 1.5676, d_4^{20} 1.4339, and the vinyl ester
of II (III), yield 12 - 52%, b.p. 215 - 216°C/728 mm Hg, 109 - 110°C/11 mm
Hg, n_D^{20} 1.5685, d_4^{20} 1.4366. The addition of I - II to aliphatic and

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aromatic vinyl esters (with thorough stirring in the presence of 2 - 4 drops concentrated HCl) gave a series of $\text{CH}_3\text{CH}(\text{OR})\text{OR}'$ acetals (IV). Below are given: the initial vinyl ether, quantity in moles, the initial phenol, quantity in moles, reaction temp. in $^{\circ}\text{C}$ and the reaction time in hrs, R and R' in IV, yield %, b.p. in $^{\circ}\text{C}/\text{mm Hg}$, n_D^{20} and d_4^{20} : vinylethyl ether (V), 0.430, I, 0.300, 85 - 90, 1.5, C_2H_5 , o- BrC_6H_4 , 40, 135/15, 1.5223, 1.3208; V, 0.120, II, 0.058, 70 - 75, 1.5, C_2H_5 , n- BrC_6H_4 (IVa), 124 - 125/8, 1.5308, 1.3483; vinylbutyl ether, 0.679, II, 0.579, 75 - 86, 1, C_4H_9 , n- BrC_6H_4 (IVb), 38, 155 - 156/17, 1.5051, 1.2364; vinylphenyl ether, 0.167, II, 0.167, 70 - 80, 2, C_6H_5 , n- BrC_6H_4 , 47.1, 171 - 173/6, 1.5831, 1.3784; III, 0.115, II, 0.104, 70 - 80, 2, n- BrC_6H_4 (IVc), 55, 216 - 217/8, m.p. 46°C , 1.6025, -.

A study was made of substitution of the Br atom in III and IV by ethyl and ethoxyl groups. Experiments to hydrolyze III and IV with dilute alkali to the respective vinyl esters of the phenols (in an autoclave, 220 - 300°C , in the presence of Cu_2Cl_2 and Cu shavings) were unsuccessful. To 53 mmoles IVa in 20 ml cryoscopic C_6H_6 were added 0.08 moles $\text{C}_2\text{H}_5\text{Br}$ and 0.13 moles Na, Card 2/3

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which was thoroughly stirred for 2 hrs at 60 - 65°C and then left to stand for ~12 hrs, whereupon it was filtered through glass wool and distilled, to give IV ($R = C_2H_5$, $R' = n-C_2H_5C_6H_4$) (IVd), yield 60%, b.p. 93 - 94°C/16 mm Hg, n_D^{20} 1.5008, d_4^{20} 0.9851. 5 g IVd and 20 ml 20% H_2SO_4 were heated for 3 hrs at ~100°C to give 4-ethylphenol (VI), yield 80%, b.p. 93 - 95°C/7 mm Hg, n_D^{20} 1.5240. In the optimum experiment 0.054 moles IVb, 0.079 moles C_2H_5Br and 0.13 moles Na in 200 ml C_6H_6 were heated for 2 hrs at 80°C and, as stated above, IV were separated ($R = C_4H_9$, $R' = C_2H_5C_6H_4$), yield 8%, b.p. 140 - 142°C/17 mm Hg, n_D^{20} 1.4960, d_4^{20} 0.9275. Under similar conditions (85 - 90°C, 2.5 hrs) the vinyl ester of VI was produced, yield 10%, b.p. 92 - 93°C/13 mm Hg, n_D^{20} 1.5148. A mixture of 0.077 moles III, 0.117 moles dry C_2H_5ONa , 10 ml C_6H_6 and 50 g Cu filings was kept at 330°C for 6 hrs; it was then washed with 10% alkali and 4-ethoxyphenol vinyl ester was separated by distillation, yield 40%, b.p. 101 - 102°C/3 mm Hg, n_D^{20} 1.5232. See abstract 4Zh122. [Abstracter's note: Complete translation.]

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KALABINA, A.V.; FILIPPOVA, A.Kh.; DMITRIYEVA, G.V.; TSARIK, L.Ya.

Polymerization of aryl vinyl ethers and their derivatives. Part 1:
Polymerization and copolymerization of vinyl ethers of halogenated
phenols. Vysokom.sped. 3 no.7:1020-1026 J1 '61. (MIRA 14:6)

1. Irkutskiy gosudarstvennyy universitet imeni A.A.Zhdanova.
(Ether) (Polymerization)

KALABINA, A.V.; TYUKAVKINA, N.A.; FILIPPOVA, A.Kh.

Combining ethylmercaptan with some vinyl ethers of chlorophenols.
Izv.Sib.otd.AN SSSR no.1:97-101 '62. (MIRA 15:3)

1. Irkutskiy gosudarstvennyy universitet.
(Mercaptals) (Insecticides)

FROLOV, Yu.L.; FILIPPOVA, A.Kh.; KALABINA, A.V.; POGODAYEVA, L.K.;
TYUKAVKINA, N.A.

Physical studies in the area of unsaturated aryl ethers and their
derivatives. Part 1: Spectra of vinyl substitutes ether of phenol.
Zhur.strukt.khim. 3 no.6:676-679 '62. (MIRA 15:12)

1. Irkutskiy gosudarstvennyy universitet.
(Phenol) (Ethers--Spectra)

FILIPPOVA, A. KH.

Dissertation defended for the degree of Candidate of Chemical Sciences
at the Institute of Organic Chemistry imeni N. D. Zelinskiy in 1962:

"Synthesis and Chemical Conversions of Vinyl Esters of Halophenols."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

1-00656-65 EPF(c)/EPH/EPA(s)-2/EWP(j)/EWT(m)/T Pc-4/Pr-4/Ps-4/Pt-10 RM/
ACCESSION NR: AT6002136 WW/VLK S/0000/64/000/000/0287/0072

AUTHOR: Kalabina, A. V.; Grechkin, Ya. F.; Bychkova, T. I.; Filippova, A. Kh.;
Korotkova, N. A.; Yermakova, A. S.

TITLE: Synthesis of some new vinyl-aryl ethers and of their conversion products

SOURCE: AN SSSR. Institut neftekhimicheskogo sinteza. Sintez i svoystva monomernykh
eterykh (thesis and properties of monomers). Moscow, [Izd-vo Nauka, 1964, 267-272

TECH TACS: vinyl aryl ether, aromatic ether, phenol derivative, diphenylpropane
diphenylpropane divinyl ether, polyether synthesis, boron trifluoride

ABSTRACT: Studies on the synthesis of vinylaryl ethers were expanded by the prepara-
tion of new ethers from substituted phenols and of their conversion products to obtain
stable and readily polymerizing compounds. The compounds reacted to prepare
vinylaryl ethers included nitro-, chloro-, bromo-, chloromethyl-, and ketophenols and
p,p'-dihydroxydiphenylpropane; the reaction products were purified by steam distillation
or recrystallization. Polymerization was mainly studied with diphenylpropane divinyl
ether in the presence of boron trifluoride at 50°C with boron trifluoride giving the most favorable

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ether homopolymer. Routes for producing di- and trichloroethyl-, and β -chloro-
vinyl-aryl ethers are established. The reaction of these ethers

with phosphoric anhydride yields polymers which do not melt at 100°C. The polymers are soluble in
chloroform, carbon tetrachloride, and benzene.

ASSOCIATION: None

SUBMITTED: 30Jul64

ENCL 00

SUB CODE: OC, GC

OTHER: 002

FROLOV, Yu.L.; KALABINA, A.V.; FILIPPOVA, A.Kh.

Physical studies of unsaturated aryl ethers and their derivatives.
Part 2: Capacity of an oxygen atom of transmitting electron effects.
Zhur. struk. khim. 6 no.3:397-401 My-Je '65. (MIRA 18:8)

1. Irkutskiy gosudarstvennyy universitet imeni A.A.Zhdanov.

FILIPPOVA, A. L., Cand Agr Sci -- (diss) "Directional growing of the
crop of table variety grapes." Odessa, 1958. 15 pp (Min of Agricul-
ture USSR, Odessa Agr Inst), 100 copies (KL, 17-58, 110)

-67-

DARKOV, G.V.. Prinimali uchastiye: GORCHEV, I.I.; DREYSIN, G.I.; DRABENOK,
P.D.; LUK'YANOVA, Ye.D.; PASEKOVA, V.D.; TYATOVA, G.S.; FILIPPOVA,
A.N.. IL'VOVSKIY, S.Z., otv.red.; ROSHCHINA, L., red.; TELEGINA,
T., tekhn.red.

[Local budgets of the U.S.S.R.; statistical collection] Vestnye
byudzhetny SSSR; statisticheskii sbornik. Moskva, Gosfinizdat,
1960. 326 p. (MIRA 13:7)

1. Russia (1923- U.S.S.R.) Byudzhetnoye upravleniye.
(Budget--Statistics)

FILIPPOVA, A. P.

FILIPPOVA, A. P. -- "The Pathogenic Properties of Staphylococci Isolated from the Conjunctival Sac and the Eyeball and Their Role in the Pathogenesis of Infectious Complications in Wounds of the Eye." Min Health RSFSR. Leningrad Sanitary-Hygiene Medical Inst. Leningrad, 1955. (Dissertation for the Degree of Candidate in Medical Sciences).

So.: Knizhnaya Letopis', No. 2, 1956.

FILIPPOVA, A. P.; GOLUBEV, A. I.; TUMANOV, A. N.;

"Behavior of Structural Components of Aluminum Alloys in the Process of Chemical Oxidation and Anodizing in Sulfuric Acid," Korroziya i azshchita metallov (Corrosion and Protection of Metals), Moscow, Oborongiz, 1957. 366 p.

PURPOSE: This book is intended for engineering, technical, and scientific personnel, at industrial plants, research institutes, and design offices working in the field of corrosion-protection of stainless steel, high-strength structural steel, and light alloys.

SOV/137-58-11-23151

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 188 (USSR)

AUTHORS: Golubev, A. I., Tumanov, A. N., Filippova, A. P.

TITLE: Behavior of the Structural Components of Aluminum Alloys During the Process of Chemical and Anodic Staining in Sulfuric Acid
(Povedeniye strukturnykh sostavlyayushchikh alyuminiyevykh splavov v protsesse khimicheskogo oksidirovaniya i anodirovaniya v sernoy kislote)

PERIODICAL: V sb.: Korroziya i zashchita metallov. Moscow, Oborongiz, 1957, pp 328-341

ABSTRACT: The behavior of various structural components of cast Al alloys during anodic (A) and chemical (C) staining was investigated. A was continued for 40 min in H_2SO_4 of 200 g/liter concentration at $18^\circ C$ and a cathode cd of 0.6-1 amp/dm². It was found that alloys cast under pressure are anodized at a higher voltage than chill-cast alloys. C was conducted in a solution containing (in g/liter): CrO_3 3 and Na_2SiF_6 3 at $18-20^\circ$ during 10 min. Before the C and A a part of the surface of the alloy was etched in a 0.5% HF solution. Successive metallographic analysis of the specimens after etching.

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SOV/137-58-11-23151

Behavior of the Structural Components of Aluminum Alloys (cont.)

C, and A made it possible to establish that in case of a greater Cu content (4.15%) the alloy consists of a solid solution and the chemical compound CuAl_2 . During A a film forms only on the surface of the solid solution. The chemical compound is etched away. Upon investigation of alloys containing an appreciable amount of Si it was established that the anodic film is then also formed on the surface of the solid solution only. The surface of Si crystals remains unchanged. Upon either chemical or electrochemical treatment of alloys no discernible oxide film could be discovered on the surface of the Si crystals. Addition of up to 10.46 Zn to Si alloys shows no appreciable effect on the behavior of the alloy during A and C. Alloys containing Mg have, along with the solid solution, an Mg_2Si component which is completely dissolved during the A of the alloy.

Yu. P.

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USSR/Medicine .. nutrition

FD-3065

Card 1/1 Pub. 141 - 11/23

Author : Koryazhnov, V. P. and Filippova, A. P.

Title : The quality of milk from cows having a positive tuberculin reaction
No. 8.

Periodical : Vop. pit., 44-44, May/Jun 1955

Abstract : It has been contended that tuberculin cows yield milk of an inferior quality, i.e. low in butter fat, low in lactose, etc. In the present work, milk from five tuberculin cows was tested for acidity, fat content, lactose, protein, dry whole milk (fat-free) content, density, inversion capacity, and diameter of fat globules. Comparison of analytical data with that of five healthy control animals indicated no noticeable differences in the above factors. States that the few tuberculosis bacilli found in the milk from some tuberculin cows are normally subjected to pasteurization in accordance with "Sanitary and Veterinary Rules". No references

Institution : Moscow Veterinary Academy

Submitted :

FILIPPOVA, A. P.

Filippova, A. P. -- "The Composition and Certain Physicochemical Properties of the Milk of Cows Afflicted with Uterine Diseases." Moscow Veterinary Academy. Min Higher Education USSR. Moscow, 1956. (Dissertation For the Degree of Candidate in Agricultural Sciences).

So: Knizhnaya Letopis', No. 11, 1956, pp 103-111.

GRISHINA, O.N.; NAYTANOVICH, M.L.; CHERNYAK, A.S.; SABIROVA, R.Z.;
FILIPPOVA, A.P.

Synthesis of dialkyl esters of alkylphosphinic acids and testing
of their extractive properties. Trudy Kom.anal.khim.14:312-322
'63. (MIRA 16:11)

PESCHANSKAYA, R.Ya.; GOL'DREYER, M.I.; FORER, Ye.R.; SHCHERBAKOVA, L.P.;
GAL'BRAYKH, I.Ye.; NIKIFOROVA, T.F.; FILIPPOVA, A.V.

New softeners for the manufacture of rubber footwear. Kauch. i
rez. 23 no.5:20-24 My '64. (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh
izdeliy i zavod "Krasnyy treugol'nik".

TKACHUK, V.G., doktor geol.-miner. nauk, otv. red.; IOMONOSOV,
I.S., kand. geol.-miner. nauk, red.; PINNEKER, Ye.V.,
kand. geol.-miner. nauk, red.; YASNITSKAYA, N.V., red.;
FILIPPOVA, B.S., red.; SHOKHET, B.S., red.izd-va;
GUS'KOVA, O.M., tekhn. red.

[Mineral waters of Eastern Siberia] Mineral'nye vody
Vostochnoi Sibiri. Moskva, Izd-vo AN SSSR, 1963. 148 p.
(MIRA 17:1)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut
zemnoy kory.

BORIN, Ivan Andreyevich; BASMANOV, V., otv. red.; FILIPPOVA, E.,
red.; TELEGINA, T., tekhn. red.

[How we struggle for increasing accumulations] Kak my bo-
remsia za uvelichenie nakoplenii; iz opyta raboty zavoda
"Elektrostal'" im. I.F. Tevosiana. Moskva, Gosfinizdat,
1963. 63 p. (MIRA 16:7)

1. Glavnyy bukhgalter zavoda "Elektrostal'" im. I.F.
Tevosyana (for Borin).
(Elektrostal'--Steel industry--Management)

YURLOV, N.; SAMOYLOV, V., redaktor; FILIPPOVA, E., redaktor; DENISOVA, O.,
tekhnicheskii redaktor.

[Forest revenue; an aid to state revenue inspectors] Lesnoi dokhod;
v pomoshch' inspektoram po gosudarstvennym dokhodam. Moskva, Gosfin-
izdat, 1954. 127 p. [Microfilm] (MLBA 7:11)
(Forests and forestry)

KUPRIYANOV, A.; KAPELYUSH, S., redaktor; FILIPPOVA, E., redaktor; DENISOVA, O.,
tekhnicheskii redaktor

[Income tax from consumer cooperatives] Podokhodnyi nalog s organi-
zatsii potrebitel'skoi kooperatsii. 2-e ispr. i dop. izd. Moskva,
Gosfinisdat, 1955. 117 p. (MIRA 9:3)
(Income tax) (Russia--Cooperative societies)

FILIPPOVA, E.

FOTEKHIN, L.; ROZENFEL'D, I.; ITIN, N.; SOKOL'SKIY, N.; KUDRYASHOV, R., redaktor; FILIPPOVA, E., redaktor; DENISOVA, O., tekhnicheskiiy redaktor

[Planning expenditures for maintaining educational and public health institutes] Planirovanie rashodov na sodershanie uchrezhdenii prosveshchenia i sdravookhraneniia. Moskva, Gosfinizdat, 1955. 215 p. (MIRA 9:2)
(Education--Finance) (Public health--Finance)

GUSIAKOV, A.; DYMSHITS, I.; SITNIN, V., redaktor; FILIPPOVA, E., redaktor;
DENISOVA, O., tekhnicheskii redaktor

[Currency circulation and credit in the U.S.S.R.] Deneshnoe
obrashchenie i kredit SSSR. Moskva, Gosfinizdat, 1955. 355 p.
(Banks and banking) (Credit) (Money) (MIRA 9:2)

FILIPPOVA

KOSOY, Avrum Meyerovich; FILIPPOVA, N., red.; LEBNIN, A., tekhn. red.

[Bank control in local industry] Bankovskii kontrol' v mestnoi
promyshlennosti. Moskva, Gosfinisdat, 1958. 87 p. (MIRA 11:7)
(Russia--Industries) (Banks and banking)

KOROVUSHKIN, Aleksandr Konstantinovich; FILIPPOVA, E., red.; LEBEDEV, A.,
tekh.n.red.

[Credit system in the seven-year plan] Kreditnaia sistema v
semiletke. Moskva, Gosfinizdat, 1960. 98 p. (MIRA 13:10)
(Credit)

ALLAKHVERDIYAN, D.A., prof., red.; BACHURIN, A.V., red.; SITARYAN, S.A.,
starshiy nauchnyy sotrudnik, red.; SHER, I.D., prof., red.;
FILIPPOVA, E., red.; TELEGINA, T., tekhn.red.

[Problems of Soviet finance] Problemy sovetskikh finansov. Moskva,
Gosfinizdat, 1960. 210 p. (MIRA 13:12)

1. Moscow. Finansovyy institut. 2. Direktor Nauchno-issledova-
tel'skogo finansovogo instituta (for Bachurin). 3. Moskovskiy
finansovyy institut (for Allakhverdyan). 4. Nauchno-issledova-
tel'skiy finansovyy institut (for Sitaryan). 5. Moskovskiy fi-
nansovyy institut (for Sher).
(Finance)

ARKHIPOV, Vsevolod Yakovlevich; KULIKOV, Oleg Nikolayevich; CHIZHOV, K.,
otv.red.; FILIPPOVA, B., red.; LEBEDEV, A., tekhn.red.

[Finance and banks of Indonesia] Finansy i banki Indonesii.
Moskva, Gosfinizdat, 1960. 95 p. (MIRA 14:3)
(Indonesia--Finance)

MASLAKOV, Vasil'y Petrovich; FILATOV, Nikolay Leonidovich; BARMIN,
Viktor Vasil'yevich; PETROV, P., red.; FILIPPOVA, E., red.;
TELEGINA, T., tekhn.red.

[Finances of communal housing and services] Finansy zhi-
lishchnogo i kommunal'nogo khoziasitva. Moskva, Gosfinizdat,
1960. 209 p. (MIRA 14:3)
(Housing--Finance) (Municipal services--Finance)

MENCHINSKIY, Vsevolod Vladimirovich; FILIPPOVA, E., red.; LEBEDEV, A.,
tekhn. red.

[Preparing a district budget] Sostavlenie biudzheta raiona. Mo-
skva, Gosfinizdat, 1961. 100 p. (MIRA 14:8)
(Budget)

GUROV, A.N., dotsent; LOGINOV, A.P., dotsent [deceased]; RABINOVICH, G.L., dotsent; RUSIN, Z.Kh., dotsent; EYDINOVA, L.L., dotsent; TORF, I.F., prepodavatel'; ALEKSANDROV, A.M., prof., red.; FILIPPOVA, E., red.; LEBEDEV, A., tekhn. red.

[State budget of the U.S.S.R.] Gosudarstvennyi biudzheth SSSR.
Moskva, Gosfinizdat, 1961. 560 p. (MIRA 15:2)

1. Kafedra Gosudarstvennogo byudzheta SSSR Leningradskogo finansovo-ekonomicheskogo instituta (for all except Filippova, Lebedev).

(Budget)

GORCHEV, I.I.; PASEKOVA, V.D.; DARKOV, G.V.; DUNDUKOV, G.F., red.;
FILIPPOVA, E., red.; LEBEDEV, A., tekhn. red.

[State budget of the U.S.S.R. and the budgets of the Union
Republics; statistical collection] Gosudarstvennyi biudzh
SSSR i biudzhety soiuznykh respublik; statisticheskii sbor-
nik. Pod red. G.F.Dundukova. Moskva, Gosfinizdat, 1962. 222 p.

(MIRA 15:6)

1. Russia (1923- U.S.S.R.) Byudzhethnoye upravleniye. 2. Otdel
finansovo-ekonomicheskoy statistiki Byudzhethnogo upravleniya
Ministerstva finansov SSSR (for Gorchev, Pasekova, Darkov).
(Budget) (Russia—Statistics)

ALLAKHVERDYAN, D.A., prof.; IPATOV, P.F., dots.; STAM, V.M., dots.;
ABROSKIN, A.A., dots.; VINOKUR, R.D., dots.; AZARKH, M.R.,
dots.; SHER, I.D., prof.; KON'SHIN, F.V., prof.; NIKOL'SKIY,
P.S., dots.; KONDRAT'YEV, A., red.; FILIPPOVA, E., red.;
LEBEDEV, A., tekhn. red.

[Finances of the U.S.S.R.] Finansy SSSR. Moskva, Gosfinizdat,
1962. 412 p. (MIRA 16:1)

1. Moskovskiy finansovyy institut (for all except Kondrat'yev,
Filippova, Lebedev).

(Finance)

MOLYAKOV, D.S.; LAVROV, V.V.; NESMIY, M.I.; FILATOV, N.L.; GOFMAN, G.A.;
FINOGEYEV, P.V.; ROBOTOV, V.T.; FILIPPOVA, E., red.; TELEGINA, T.,
tekhn. red.

[Financing the national economy] Finansirovanie narodnogo kho-
ziaistva. Moskva, Gosfinizdat, 1962. 319 p. (MIRA 16:2)
(Finance)

ZHEVTYAK, P.N., dots.; LARIONOVA, M.A., kand. ekon. nauk; LAYKOV, A.M., prepodavatel'; YASTREBOV, N.A., dots.; SHASHKOVSKIY, A.V., st. prepodavatel'; KONDRAT'YEVA, A., red.; FILIPTOVA, E., red.

[Finance of enterprises and branches of the national economy]
Finansy predpriyatii i otraslei narodnogo khoziaistva. Moscow, Finansy, 1964. 430 p. (MIRA 17:11)

1. Kafedra finansov Leningradskogo finansovo-ekonomicheskogo instituta (for Zhevtyak, Larionova, Laykov, Yastrebov, Shashkovskiy).

MILLIONSHCHIKOV, Anatoliy Dmitriyevich; SOROKIN, Valentin Alekseyevich;
KOZHUKH, Semen Arkad'yevich; TITOV, Konstantin Sergeyevich;
FILIPPOVA, E., red.

[Deductions from profit] Otchisleniia ot pribyli. Izd.3.,
perer. i dop. Moskva, Izd-vo "Finansy," 1964. 182 p.
(MIRA 17:6)

KORYUNOV, S.N.; BRAGINSKIY, L.V.; YEPANESHNIKOV, V.K.; NEDELIN,
S.I.; NESMIY, M.I.; NOSYREV, S.S.; PAKHOMOV, A.M.;
FILIPPOVA, E., red.

[Organization of collective-farm finance] Organizatsiia
finansov kolkhoza. Moskva, Finansy, 1964. 243 p.
(MIRA 18:5)

1. Moscow. Nauchno-issledovatel'skiy finansovyy institut.

PLOKHOV, Aleksandr Aleksandrovich; FILIPPOVA, E., red.

[Establishing norms for working capital in an enterprise] Normirovanie oborotnykh sredstv na predpriatii.
Moskva, Finansy, 1965. 66 p. (MIRA 18:9)

FINOGYEV, Petr Vasil'yevich; FILIPPOVA, E., red.

[Analysis of the carrying out of the estimated expenditures of public institutions] Analiz ispolneniia smet raskhodov biudzhetrykh uchrezhdenii. Moskva, Finansy, 1965. 146 p. (MIRA 18:9)

FRIDMAN, E.A.; GRIGOR'YEVA-BERENSHTEYN, A.G.; STENINA, Ye.S.; KUDYAKOVA,
L.I.; FILIPPOVA, G.D.; BOLDASOV, V.K.

Immunological evaluation of the effectiveness of anti-influenza
vaccination in 1958-1959 '61. Trudy Len.inst.epid.i mikrobiol. :
22:146-156 '61 (MIRA 16:2)

1. Iz laboratorii grippe (zav. E.A. Fridman) Leningradskogo
instituta epidemiologii i mikrobiologii imeni Pastera i otdela
epidemiologii (zav. A.G. Grigor'yeva-Berenshteyn) Leningradskogo
nauchno-issledovatel'skogo instituta vaktsin i syvorotok.
(INFLUENZA--PREVENTIVE INOCULATION) (IMMUNITY)

1. 6. 2012

Zinovskiy, V. L.; Lyashenko, O. K. *Nedra* 1984, 10, 1, 10-11.

"synthesis" of 1-oxy-1'-hydroperoxydicyclohexyl peroxide.

Содержание: 1. Общие сведения о предприятии. 2. Анализ финансово-хозяйственной деятельности. 3. Анализ ликвидности и платежеспособности. 4. Анализ эффективности использования капитала. 5. Анализ рисков. 6. Заключение.

vitonexanone peroxide, cyclohexanone peroxide, and cyclohexanone peroxide.

... 1949 ...

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

ad 2. 2. 2.

ANTONOVSKIY, V.L.; YEMELIN, Yu.D.; KYSHEVA, N.I.; FILIPPOVA, G.F.

Synthesis of cumenyl peroxide. Khim. prom, 40 no.9:657-659
S '64. (MIRA 17:11)

FILIPPOVA, G.P.; ISHKIN, I.P.

Viscosity of compressed nitrogen and argon. Izv.vys.ucheb.zav;
khim.i khim.tekh. 4, no.5:863-865 '61. (MIRA 14:11)

1. Vsesoyuznyy zaochnyy politekhnicheskiiy institut, kafedra mashin
i oborudovaniya khimicheskikh proizvodstv.
(Nitrogen) (Argon) (Gases, Compressed)

FILIPPOVA, G.P.; ISHKIN, I.P.

Calculation of the viscosity of compressed gases by the
principle of corresponding states. Inzh.-fiz. zhur. 4
no.10:9-14 0 '61. (MIRA 14:10)

1. Vsesoyuznyy nauchnyy politekhnicheskii institut, Moskva.
(Viscosity)

FILIPPOVA, S. P.

BERDICHEVSKIY, G.I., kand.tekhn.nauk; DMITRIYEV, S.A., kand.tekhn.nauk;
 MIKHAYLOV, K.V., kand.tekhn.nauk; GVOZDEV, A.A., prof., doktor
 tekhn.nauk; MIKHAYLOV, V.V., prof., doktor tekhn.nauk; BULGAKOV,
 V.S., kand.tekhn.nauk; VASIL'YEV, A.P., kand.tekhn.nauk; YEVGEN'YEV,
 I.Ye., kand.tekhn.nauk; MULIN, N.M., kand.tekhn.nauk; SVETOV, A.A.,
 kand.tekhn.nauk; FRENKEL', I.M., kand.tekhn.nauk; BELOEROV, I.K.,
 inzh.; MATKOV, N.G., inzh.; MITNIK, G.S., inzh.; SKLYAE, B.I., inzh.;
 SHILOV, Ye.V., inzh.; MASENKO, I.D., inzh.; NIZHNICHENKO, I.P., inzh.;
 FILIPPOVA, G.P., inzh.; MIZERNYUK, B.N., kand.tekhn.nauk; SHEYNFEL'D,
 N.M., kand.tekhn.nauk; BALAT'YEV, P.K., kand.tekhn.nauk; BARBARASH,
 I.P., kand.tekhn.nauk; MITGARTS, L.B., kand.tekhn.nauk; SHIFRIN, M.A.,
 kand.tekhn.nauk; PETROVA, V.V., red.izd-va; TEMKINA, Ye.L., tekhn.red.

[Temporary instruction on the technology of making prestressed re-
 inforced concrete construction elements] Vremennaya instruktsiya po
 tekhnologii izgotovleniya predvaritel'no napriazhennykh zhelezobeto-
 nnykh konstruktsei. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i
 stroit.materialam, 1959. 255 p. (MIRA 12:12)

(Continued on next card)

BERDICHEVSKIY, G.I.---(continued) Card 2.

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR (for Gvozdev, V.V.Mikhaylov, Berdichevskiy, Bulgakov, Vasil'yev, Dmitriyev, Yevgen'yev, K.V.Mikhaylov, Mulin, Svetov, Frenkel', Balobrov, Matkov, Mitnik, Sklyar, Shilov). 3. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhpomoshchi Akademii stroitel'stva i arkhitektury SSSR (for Masenko, Nizhnichenko, Filippova, Mizernyuk, Sheynfel'd). 4. Nauchno-issledovatel'skiy institut Glavmospromstroymaterialov (for Balat'yev, Barbarash). 5. Nauchno-issledovatel'skiy institut po stroitel'stvu Ministroya RSFSR (for Mitgarts, Shifrin). 6. Deystvitel'nyye chleny Akademii stroitel'stva i arkhitektury SSSR (for Gvozdev, V.V.Mikhaylov).
(Prestressed concrete)

89930

S/170/61/004/003/009/013
B117/B209

26.1160

AUTHORS: Filippova, G. P., Ishkin, I. P.

TITLE: Viscosity of air, nitrogen, and argon at low temperatures and pressures of up to 150 atm

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 3, 1961, 105-109

TEXT: The authors employed a new standard method of determining the viscosity of gases at temperatures from $+20^{\circ}$ to -196°C and at pressures of up to 150 atm. The method is based on the principle that the gas flows through two capillary tubes. Through one of the capillaries, the gas flows at a preset pressure and temperature; through the other tube, i. e., the standard capillary, it streams at nearly atmospheric pressure and room temperature. When the masses of gas streaming through both capillaries are adjusted to be equal, one can derive a formula for calculating the kinematic viscosity: $\nu_1 = F\nu_2\Delta p_1/\Delta p_2$, where ν_1 denotes the kinematic viscosity of the gas in the test tube, F the constant of the arrangement, ν_2 the kinematic viscosity of the gas in the standard tube; Δp_1 and Δp_2 are the pressure gradients in the

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S/170/61/004/003/009/013
B117/B209

Viscosity of air ...

capillaries. As the determination of F requires much time, a much simpler relative method is used for this purpose. In this case, F is found on the basis of gauge tests when the viscosity of the gas in the test tube is known. The maximum error in the determination of the kinematic viscosity coefficient amounts to 3%. The accuracy of the results may be improved by repeated experiments. Interpolated viscosity curves supply values with an accuracy of up to 1-1.5%. The authors determined the viscosity of water, nitrogen, and argon between 0° and -183°C and at pressures of up to 150 atm; the viscosity of hydrogen was determined at -100°C . A comparison between the values obtained and those of other authors shows good agreement. The maximum deviation is 1.5%. The values of the kinematic viscosity were calculated by averaging over several (2 - 13) experiments in the case of maximum pressure fluctuations of ± 1 atm. The dynamic viscosity was ascertained from a transformation of kinematic viscosity. The density of air, nitrogen, and argon was calculated from their compressibility. The isobaric lines were continued until 50°C according to data of I. F. Golubev (Fig. 1). The entire character of the family of curves corresponds to that of other substances near the critical point. The authors thank I. F. Golubev for valu-

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89930

Viscosity of air ...

S/170/61/004/003/009/013

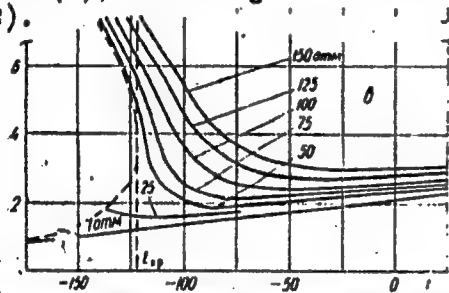
B117/B209

able advice. There are 1 figure, 2 tables, and 8 references: 3 Soviet-bloc.

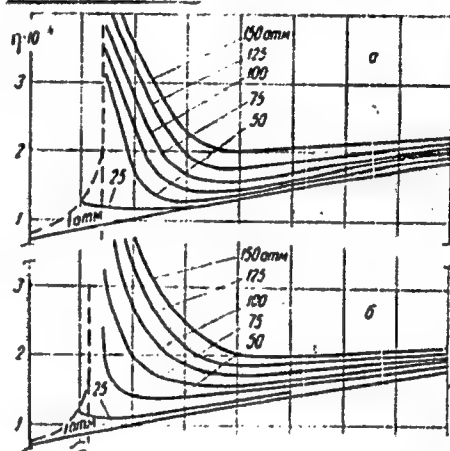
ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo mashinostroyeniya, g. Moskva (All-Union Scientific Research Institute of Oxygen Machinery, Moscow)

SUBMITTED: November 29, 1960

Legend to Fig. 1: Isobaric lines of dynamic viscosity of air (a), nitrogen (b), and argon (c), according to temperature ($^{\circ}\text{C}$).



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27548

S/170/61/004/010/002/019

B109/B125

5.1210

AUTHORS: Filippova, G. P., Ishkin, I. P.

TITLE: Calculation of the viscosity of compressed gases by means of the similarity method

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 10, 1961, 9 - 14

TEXT: The methods used so far in approximatively calculating the viscosity of compressed gases are not satisfactory. The authors present a new technique of calculating the viscosity of compressed gases from critical temperature and pressure. Density must be known. The essence of this very accurate method is the proper choice of the dimensionless quantities

$\sigma = \rho^{4/3} T_{cr}^{7/6} / \Delta \eta p_{cr}^{2/3} M^{5/6}$ and $\omega = \rho T_{cr} / p_{cr} M$. ρ denotes the density, T_{cr} - the critical temperature, η - the viscosity, $\Delta \eta = \eta_{T_{cr}} - \eta_T \cdot p_{cr}$

is the critical pressure, M - the molecular weight. L. P. Filippov (Dissertatsiya, MGU, 1951) and A. S. Predvoditelev (Sbornik, posvyashchenny P. P. Lazarevu, 1956, str. 84 - 112) interrelated the above dimensionless

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S/170/61/004/010/002/019
B109/B125

Calculation of the viscosity of ...

quantities through the equation $\sigma = \alpha - \beta \omega$, where the dimensionless quantities α and β are identical for similar substances. The authors found the same relation $\sigma = 5.33 - 0.0387 \omega$ (7) for N_2 , O_2 , CO , CO_2 , CH_4 , C_2H_4 , C_2H_6 , and C_3H_8 . Consequently, this relation can be used for calculating the viscosity of a compressed gas in a wide temperature and pressure range. Only critical temperature and critical pressure must be known. The accuracy of formula (7) was checked with CO_2 . It proved to be positively superior to the methods of Enskog, Shirokov, Panchenkov, Stolyarov, and Golubev (Table 1). Because of the great significance of this method in engineering, the dynamic viscosity of oxygen was calculated for the temperature range between 200 and $-100^\circ C$ at pressures of up to 400 atm. The known quantities were $T_{cr} = 154.8^\circ K$ and $P_{cr} = 51.7$ atm. The results are shown in Fig. 3. O. I. Leypunskiy (Sb. trudov po tekhnicheskoy fizike, 1948, str. 31) and M. G. Gonikberg (ZhFKh, 2, 7, 1947) are mentioned. There are 3 figures, 1 table, and 17 references: 13 Soviet and 4 non-Soviet. The three most recent references to English-language publications read as follows: Uyehara O. A., Watson K. M. Nat. Petroleum News, 36, 764, 1944.

Card 2/5

27548

S/170/61/004/010/002/019

B109/B125

Calculation of the viscosity of ...

Pitzer K. S., Journ. of the American Chemical Society, 77, July 16, No. 13, 1955. Grunberg L. Ind. Eng. Chem., 42, 5, 885, 1950.

ASSOCIATION: Vsesoyuznyy zaoochnyy politekhnicheskiy institut, g. Moskva
(All-Union Correspondence Polytechnic Institute, Moscow)

SUBMITTED: April 17, 1961

Table 1. Change in the viscosity of CO₂ at 100°C with pressure. Legend:

(1) P, atm, (2) experimental $\eta \cdot 10^7$ g/cm·sec, (3) from the formula by Enskog, Shirokov, Panchenkova, Stolyarov, Golubev.

Card 3/5

BREMNER, S.M.; RASKIN, I.M.; ALFEROVA, V.A. ROGOVA, K.P.; FILIPPOVA, G.S.

Metabolism of vitamin B₆ and its effect in acute hepatitis.
Vop. med. khim. 11 no.1:22-27 Ja-F '65. (MIRA 18:10)

1. Klinicheskoye otdeleniye Ministerstva zdravookhraneniya SSSR,
Moskva.

SHEKHMAN, Ya.L.; FILIPPOVA, G.V.; RADZIKOVSKIY, G.B.

Radiosensitivity of *Escherichia coli* as related to the method of cultivation and the conditions of the medium during X-ray and alpha-ray irradiation. Radiobiologia 3 no.1:34-38 '63.
(MIRA 16:2)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(*ESCHERICHIA COLI*) (RADIATION—PHYSIOLOGICAL EFFECT)

BUTKEVICH, R.V.; SHUSHKOVSKAYA, Ye.L., redaktor; FILIPPOVA, G.V., redaktor;
BALELOJ, I.I., redaktor.

[Peculiarities of working large coal seams in the Chelyabinsk Basin]
Osobennosti razrabotki moshchnykh ugol'nykh plastov v Cheliabinskom
basseine. Moskva, Ugletekhizdat, 1953. 162 p. (MLRA 7:6)
(Chelyabinsk Basin--Coal mines and mining) (Coal mines and
mining--Chelyabinsk Basin)

FILIPPOVA, G.V.

TONGUR, V.S.; GOLUBEVA, N.P.; DISKINA, L.S.; SPITKOVSKIY, D.M.;
FILIPPOVA, G.V.

~~Effect of small doses of ionizing radiation on deoxyribonucleo-~~
proteins [with summary in English]. Biofizika 2 no.4:469-475 '57.
(MLA 10:9)

1. Institut eksperimental'noy biologii Akademii meditsinskikh
nauk, SSSR, Moskva
(NUCLEOPROTEINS) (X RAYS--PHYSIOLOGICAL EFFECT)

SHEKHTMAN, Ya.L., PLOKHOT, V.I., FILIPPOVA, G.V.

Form of the dosage curve obtained in irradiating Escherichia coli
with X rays and alpha rays of polonium [with summary in English].
Biofizika 3 no.4:479-486 '58 (MIRA 11:8)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(ESCHERICHIA COLI)
(X RAYS--PHYSIOLOGICAL EFFECT)
(ALPHA RAYS--PHYSIOLOGICAL EFFECT)

5(4)

AUTHORS:

Filippova, G. P., Engineer,
Ishkin, I. P., Professor, Doctor of Technical Sciences

SOV/67-59-2-8/18

TITLE:

Viscosity of Air and Argon at Temperatures of Between 0 and -183° C and Pressures of Between 1-150 Atmospheres Absolute Pressure (Vyazkost' vozdukha i argona pri temperaturakh ot 0 do -183° C i davleniyakh ot 1 do 150 ata)

PERIODICAL:

Kislored, 1959,¹² Nr 2, p 38 (USSR)

ABSTRACT:

There are no data available in publications on the viscosity of the afore-mentioned gases, at pressure and low temperatures, already indicated by other authors (Refs 3,4,5). In order to fill this gap, the Physico-technical Laboratory of the VNIIMASH devised a method for determining the viscosity of compressed gases at low temperatures. This method is a new variant of the flow method. Accordingly, the gas passes through two capillary tubes, a determinant and a comparative capillary. In the latter atmospheric pressure and room temperature prevail. The desired viscosity is proportional to the ratio of pressure drop in both capillary tubes. A table

Card 1/2

Viscosity of Air and Argon at Temperatures of Between SOV/67-59-2-8/18
0 and -183°C and Pressures of Between 1-150 Atmospheres Absolute Pressure

contains data on the dynamic viscosity of the air and argon
at low temperatures in dependence of pressure. There are 1
table and 5 references, 3 of which are Soviet.

Card 2/2

FILIPPOVA, I.A.

Raising the hybrid of beluga and sterlet in the ponds of
collective farms in Voronezh Province. Trudy sov. Ikht.
kom. no.14:186-187 '62. (MIRA 15:12)

1. Biologicheskaya stantsiya Voronezhskogo gosudarstvennogo
universiteta.
(Voronezh Province—Sturgeon breeding)

MIKHAYLOV, A.Ye.; FILIPPOVA, I.B.

Upper Atasu Ordovician in central Kazakhstan. Sov.geol. 12 no.3:
141-142. M. '59. (MIRA 12:6)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.
(Atasu Valley—Geology, Stratigraphic)

FILIPPOVA, I.B.; SHCHERBAKOVA, M.N.

Devonian stratigraphy of the upper Ata-Su Valley (central Kazakhstan).
Izv.vys.ucheb.zav.; geol.i razv. 3 no.1:37-52 Ja '60. (MIRA 13:7)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Ata-Su Valley-- Geology, Stratigraphic)

FILIPPOVA, I.L., assisten; RYZHKOV, Ye.V., otv. red.

[Manual on laboratory work in the course "Radio engineering systems"] Posobie k laboratornym rabotam po kursu "Radiotekhnicheskie sistemy." Leningrad. No.2. 1963. 30p. (MIRA 17:12)

1. Leningrad. Elektrotekhnicheskiy institut svyazi. Kafedra radiotekhnicheskikh sistem svyazi.

FILIPPOVA, I. Ya.

Filippova, I. Ya.

"Problems of rebuilding the sandy shores of water reservoirs." Min
Higher Education USSR. Moscow Order of Labor Red Banner Construction
Engineering Inst imeni V. V. Kuybyshev. Moscow, 1956. (Dissertation
for the Degree of Candidate in Technical Sciences).

Knizhnaya letopis'
No. 15, 1956. Moscow.

FILIPPOVA, I.Ya.

Investigating the transformation of sandy shores in case of oblique approach of waves. Trudy Okean.kom. 4:156-160 '59. (MIRA 13:4)

1.Moskovskiy ordena Trudovogo Znameni inzhenerno-stroitel'nyy institut im. V.V.Kuybysheva.
(Coast changes)

Filippova, K.F.
TARANTIN, N.I.; GERLIT, Yu.B.; GUSEVA, L.I.; MYASOYEDOV, B.F.; FILIPPOVA,
K.F.; PIEROV, G.N.

Mass distribution of fission products produced in the irradiation
of gold and uranium by nitrogen ions. Zhur.skep. i teor. fiz.
34 no.2:316-321 F '58. (MIRA 11:4)
(Fission products)

USSR / Cultivated Plants. Fodder Crops.

M-5

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58643

Author : Filippova, K. F.

Inst : Molotov University

Title : The Effect of Nitrugin and of the Salt Level B₂ on the Development of the Root System, on the Formation of Root Tubercles, and on the Yield of Alfalfa Hay

Orig Pub : Izv. Vsesoyuzn. nauchn. in-ta pri Molotovsk. un-te, 1957, 13, No 10, 73-86

Abstract : The results of experiments conducted to find out the effectiveness of nitrification by bacteria isolated from salted soils are given in this paper. The methods of obtaining pure cultures of root tubercle bacteria of alfalfa, and methods of seed inoculation are described. The inoculation of alfalfa seeds by various strains of root tubercle bacteria increased the yield of hay by

Card 1/2

USSR / Cultivated Plants. Fodder Crops.

M-5

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58643

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413120014-5"

13 - 17. The various strains of root tubercle bacteria can be placed in the following order in relation to the effect of their action on the root system, as well as on the quality and quantity of root tubercles; the first place belongs to the salt level B₂ of the cork-columnar solonetz; in second place, we find the pure culture of tubercle bacteria, isolated from alfalfa grown in a deep-columnar solonetz; the third place belongs to the pure culture of bacteria from the common chernozem. The introduction of phosphoric fertilizers increased the development of the alfalfa root system, and the yield of hay. It almost doubled the number of root tubercles in comparison with the control. -- Bibl. 20 titles. -- V. M. Kashmanova

Card 2/2

AVDEYEV, I. M.; FILIPPOVA, K. I.

Complement Fixation

Application of complement fixation in the determination of brucellosis. Veterinariia 29 no. 3:30 Mr '52.

9. Monthly List of Russian Accessions, Library of Congress, July 195~~3~~₂. Unclassified.

AVDEYEV, I.M., vetvrach; FILIPPOVA, K.I., vetvrach.

Examining feed and animal blood for carotene. Veterinariia 35
no.10:72-75 O '58. (MIRA 11:10)

1. Bryanskaya mashsovkhoznaya vetbaklaboratoriya.
(Carotene) (Feeding and feeding stuffs--Analysis)

FILIPPOVA, K. I.

Dissertation: "Polymicrochemical Method of Analysis of Anions." Cand Chem Sci,
Moscow Chemico-Technological Inst imeni D. I. Mendeleev, Moscow 1953

W-30928

SO: Referativnyi Zhurnal, No. 5, Dec 1953, Moscow, AN USSR (~~W-30928~~)

FILIPPOVA, K.I.

Analytical Abst.
Vol. 1 No. 2
Feb. 1954
Inorganic Analysis

4
(4) Chem
✓ 278. New qualitative reaction for thiocyanates.
A. P. Kreshkov, S. S. Vilborg and K. I. Filippova
(*J. Anal. Chem., U.S.S.R.*, 1953, 8 [3], 225-227).
Addition of 0.1 N Cu acetate to an equal vol. of a
5 per cent. soln. of aniline in 5 per cent. acetic acid
gives a reagent that produces a yellow-brown cryst.
ppt. with thiocyanates. According to Korshman
("Microcrystalloscopy," 1947), who proposed the
reaction for the detection of Cu, the ppt. is
 $[\text{Cu}(\text{C}_6\text{H}_5\text{NH}_2)_2 \cdot 5\text{H}_2\text{O}](\text{CNS})_2$. The test for thio-
cyanate can be carried out in a test tube, on a spot
plate, on filter-paper, or on a microscope slide.
(sensitivity 1 μg). G. S. Smith

5-21-54 mlf

Moscow Chem-Tech. Inst. in. Mendeleev

Filippova, K.I.

New qualitative test for thiocyanates. A. P. Kreshkov,
S. S. Vil'borg, and K. I. Philippova. *Anal. Chem.*
1978, 50, 11978c.

FILIPPOVA, K.I.

(7) 2/19/54

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Analytical Chemistry

New color tests for oxalates and sulfates. A. P. Kreshkov, S. S. Yul'eva, and K. I. Filippova (D. I. Mendeleev Chem.-Technol. Inst., Moscow), *Zh. Anal. Khim.* 9, 306-10 (1953).—The test is based on the formation of a brown ppt. when $C_2O_4^{--}$ or SO_4^{--} reacts with benzidine and $Cu(OAc)_2$. Both can be added separately or combined in a reagent congt. equal vols. of 0.5% soln. of benzidine in 5% AcOH and in 0.2N $Cu(OAc)_2$. The brown ppts. are believed to correspond to $[Cu^{++}(C_6H_4(NH_2)_2)_2]C_2O_4$ and $[Cu^{++}(C_6H_4(NH_2)_2)_2]SO_4$. The test can be carried out in test tube, on a spot plate, or on filter paper. M. Hosen

7-19-54

~~FILE~~ FILIPPOVA, K.I.

7

✓ 2392. Complex compounds of copper with anilines and their use in the detection of certain anions.

A. P. Krashtov and K. I. Filipova. *Trudy*

~~Mosk. Khim. Tekhnol. Inst. Khim. 1955, Abstr.~~

~~1955, 138, 81-88; Ref. Zhur. Khim. 1955, Abstr.~~

No. 19,090. Complex cations of Cu with organic

addends—benzidine, o-tolidine, aniline, o-toluidine,

p-toluidine and amidopyrine—are applied to the

detection of $S_2O_8^{2-}$, SO_3^{2-} , $C_2O_4^{2-}$, SCN^- and I^- .

The copper benzidine complex can be used for

the identification of thiocyanate ions.

Color reactions of ferricyanides with dimethylaminopyr-
 ydine and tetramethyldiaminodiphenylmethane. A. P.
 (U. I. Mendeleev, Chem. Zhurnal, Moscow, 21,
 Anal. Khim. 11, 12-13 (1936). Two new reactions for
 detection of $Fe(CN)_6^{3+}$ are described. One is the oxida-
 tion of dimethylaminopyridine with $Fe(CN)_6^{3+}$ in the pres-
 ence of Zn ions, thereby producing a violet color. The
 other is the oxidation of tetramethyldiaminodiphenyl-
 methane with $Fe(CN)_6^{3+}$ in the presence of Zn ions and
 thereby producing a blue color. These tests can be carried
 out in the presence of $Fe(CN)_6^{3+}$, ClO_4^- , BrO_3^- , IO_3^- ,
 and other oxidizing agents. M. Hosh

IGNAT'YEVA, L.A.; FILIPPOVA, K.I.

Study of α - and β -spodumenes by means of infrared spectroscopy.
Zhur.fiz.khim. 34 no.9:2092-2090 S '60. (MIRA 13:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Spodumene--Spectra)

5.2100
AUTHORS:

TITLE:

1087
Ostroushko, Yu. I., Filippova, K. I., Ignat'yeva, L. A.
Interaction of β -spodumene and sulfuric acid
PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 2, 1962, 244 - 251
TEXT: The mechanism of the reaction between spodumene and H_2SO_4 was studied for varying thermal pretreatment of the former. β -spodumene was obtained from α -spodumene (Li_2O - 6.71%; Al_2O_3 - 23.94%; SiO_2 - 62.4%) by heating to 1000°C (tube Silit furnace). The conversion of the α to the β -form was checked by crystal optical and x-ray analyses. β -spodumene was made to react with H_2SO_4 in quartz test tubes (standard conditions: 250°C for 60 min; H_2SO_4 consumption 40%), the mixture was filtered and washed with hot water. Residues were studied by x-ray diffraction analysis (with the YPC-70 (URS-70) apparatus), with the PKA-62 (RKD-62) camera with Fe anode and Mn filter) as well as infrared spectrographically (WKC-2 (IKS-2) beam infrared spectrograph with LiF prism for the range from 6000

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B119/B110

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B119/B110

Interaction of β -spodumene...

to 1500 cm^{-1} and with KCl prism from 1400 to 550 cm^{-1}) and compared with the data of the initial substances. Besides these analytic methods thermogravimetric and chemical analyses were used. 1) The minimum tempering temperature for α -spodumene required for a reaction with H_2SO_4 (it is 950°C), 2) the optimum temperature and time of the spodumene - H_2SO_4 reaction (up to 100°C - spodumene is not changed; minimum reaction temperature 150°C , optimum temperature with minimum reaction time $250 - 300^\circ\text{C}$); 3) the reversibility of the reaction with H_2SO_4 by tempering of the non-washed reaction product at $500, 700, 800, 900, 1000$, and 1100°C were determined. Results: β -spodumene reacts with H_2SO_4 as follows:

$\text{Li}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 4\text{SiO}_2 + \text{H}_2\text{SO}_4 \longrightarrow \text{Li}_2\text{SO}_4 + \text{H}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 4\text{SiO}_2$; the IR spectrogram of the residue shows one OH-vibrational band each at 3020 and 2450 cm^{-1} (the latter verified by substituting H_2O by D_2O) which are not present in the spectrogram of the initial substance. The above-mentioned reaction is not possible with α -spodumene. Significant deformations of the crystal lattice occur, if Li in spodumene is replaced by H. The residue resulting

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Interaction of β -spodumene...

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B119/3110

after leaching is a particular mineral which is not like the product leached under natural conditions. The substitution reaction effected by H_2SO_4 is reversible above $700^\circ C$; β -spodumene is formed again. There are 6 figures, 4 tables, and 7 references: 3 Soviet and 4 non-Soviet. The four references to English-language publications read as follows: I. J. Bear. Chem. Engng. and Mining Rev., 50, 40 (Febr. 1958); I. J. Bear. Chem. and Engng. News, 32, no. 29, 2868; no. 51, 5017; no. 52, 5108 (1954); L. E. Djigheuzian. Symposium on the extraction metallurgy of some of the less Common Metals. London, W. C., 2, march 22, 1956, paper 5. Metallurgical Developments in the Recovery of Some of the less Common Metals in Canada; R. Hader, R. Nielsen, M. Herre. Ind. Engng. Chem., 43 (12), 2636 (1951).

SUBMITTED: February 20, 1961

Card 3/3

ACCESSION NR: AP4009480

S/0063/63/008/006/0706/0706

AUTHOR: Filippova, K. I.

TITLE: New color reaction for hydrogen peroxide

SOURCE: Vsesoyuznoye khimicheskoye obshchestvo. Zhurnal, v. 8, no. 6, 1963, 706

TOPIC TAGS: hydrogen peroxide, identification, color reaction, color reagent, copper-toluidine complex, copper-toluidine color reagent.

ABSTRACT: Hydrogen peroxide may be selectively detected in the presence of other oxidizing agents such as chlorine, chromates or persulfates by reacting with a copper-toluidine complex at pH 6-7 to form a characteristic orange-red precipitate which dissolves readily in acids to form a cherry red solution. To prepare the reagent: a saturated aqueous solution of p-toluidine is poured into a 0.07 M solution of copper acetate in a 2:3 ratio. 0.5 ml. of a saturated solution of sodium acetate is added to 1 ml. of the copper-toluidine complex. On adding 2-3 drops of a solution containing hydrogen peroxide an orange-red precipitate forms which dissolves in

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ACCESSION NR: AP4009480

H₂SO₄ to a cherry-red solution.

ASSOCIATION: Moskovskiy inzhenerno-stroitel'nyy institut im. V. V.
Kuybyshcheva (Moscow Civil Engineering Institute)

SUBMITTED: 02Aug 63

DATE ACQ: 10Feb64

ENCL: 00

SUB CODE: CH

NR REF SOV: 000

OTHER: 000

2/2

Card

FILIPPOVA, K. V.

261 T18

USSR/Chemistry - Ion Exchange

May/Jun 52

"The Comparative Characteristics of Certain Ion-Exchanging Substances," D.I. Ryabchikov, M.M. Senyavin, K.V. Filippova, Inst of Geochemistry and Anal Chem im V.I. Vernadskiy, Acad Sci USSR, Moscow

Zhur Anal Khim, Vol 7, No 3, pp 135-144

Conducted a comparative study of domestic cationites and anionites, comparing them with the best foreign specimens with the aim of using ion-exchange resins in chemical analysis. According to their bulk specific gravities and

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swellings, the most suitable resins were the domestic cationite, SBS; and the domestic anionite, NMG-1. In magnitude of over-all exchange capacity, within a broad pH interval, SDV-1, SDV-2, and SBS were the most suitable cationites. The authors mentioned cationites with carboxyl functional groups, KM. The recommended the anionite, NMG-1, for analytical purposes.

FILIPPOVA, K.V.

Analytical Abst.

Vol. 1 No. 2

Feb. 1954

General Analytical Chemistry

4
(3) Chem.
225. Comparative characteristics of some ion-exchange materials. H. D. I. Ryabchikov, M. M. Senyavin and K. V. Filippova (*J. Anal. Chem., U.S.S.R.*, 1953, 8 [4], 220-224).—Earlier data (*Brit. Abstr. C*, 1953, 44) are supplemented by results of experiments on swelling capacity and sp.gr. of air-dried and oven-dried ion-exchange substances, and on their exchange capacities at various pH values.

5-21-54. mlf. G. S. SMITH

FILIPPOVA, K. V.

Filippova, K. V.

"Investigation of the optical anisotropy of transparent 'electret'."
Moscow City Pedagogical Inst imeni V. P. Potemkin. Moscow, 1956
(Dissertation for the degree of Candidate in Physicomathematical
Science)

Knizhraya letopis'
No. 25, 1956, Moscow

FILIPPOVA, K.V.

SUBJECT
AUTHOR

USSR / PHYSICS

CARD 1 / 1

PA - 1720

GUSEVA, I.I., FILIPPOVA, K.V., GERLIT, V.A., DRUIN, B.F.,
MYASOEDOV, B.F., TARANTIN, N.I.

TITLE

Experiments carried out with a Cyclotron on the Occasion of the
Production of Einsteinium and Fermium.

PERIODICAL

Atomnaja Energija, 1, fasc. 2, 50-54 (1956)
Issued: 1 / 1957

The results obtained by some experiments carried out on the occasion of the production of einsteinium and fermium by bombarding the uranium nuclei with quintuply ionized nitrogen and with sextuply ionized oxygen are described.

The half life and the energy of the α -particles are on this occasion determined by means of a photographic plate, with an ionization chamber which has spherical electrodes, and by means of a twenty-channel counting tube. A chromatographic method was used for the purpose of separating the transplutonium elements. By the bombardment of radioactive uranium with nitrogen ions of 105 MeV an einsteinium isotope with the mass number 247 was obtained, but by bombarding uranium with oxygen ions of 120 MeV a fermium isotope was obtained.

INSTITUTION:

610
EXPERIMENTS ON THE CREATION OF BERYLLIUM
AND FERMIUM IN A CYCLOTRON. G. I. LINDY, A. V.
FEDOROVA, Ya. B. GORIN, V. A. BIRNBAUM, F. V. BIRNBAUM

[illegible]

pp. 05A, 12

✓ Experiments on the production of singlet and
triplet with a electron L. I. Guseva, K. V. ...
V. A. Gelfand, V. A. ...

15
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FILIPPOVA, K. V., FLEROV, G. N., GERALT, Yu. B., LEEVA, L. A., MASLOBOV, S. F.
and TARANTIN, N. I. (Acad. Sci. USSR)

"Mass Distribution of Fission Fragments Formated by Nitrogen Ions on Gold and Uranium Nuclei."

paper submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 57.

FILIPPOVA, K.V.

56-2-4/47

AUTHOR GERLIT, Yu.B., GUSEVA, L.I., MYASOYEDOV, B.F., TARANTIN, N.I.,
 FILIPPOVA, K.V., FLEROV, G.N.

TITLE Yield of Californium isotopes produced in the Interaction between
 Carbon Isotopes and Uranium Nuclei
 (Vykhody izotopov kaliforniya v reaktsiyakh vzaimodeystviya krov
 ugleroda s yadrami urana. Russian)

PERIODICAL Zhurnal Eksperim. i Teoret. Fiziki 1957, Vol 33, Nr 2 (8), pp 339 -
 - 342 (U.S.S.R.)

ABSTRACT In a 67 cm cyclotron four-fold charged carbon ions are accelerated up
 to 90 MeV. With this energy they impinge upon a thick uranium target
 and cause the reaction $U(C, n)Cf$. The absolute yields per impinging
 carbon ion and the following reactions are:

| | |
|--------------------------------|--------------------------|
| $U^{239}(C^{12}, 4n) Cf^{246}$ | $1,5 \cdot 10^{-9}$ |
| $U^{239}(C^{12}, 5n) Cf^{245}$ | $\sim 3,0 \cdot 10^{-9}$ |
| $U^{239}(C^{12}, 6n) Cf^{244}$ | $\leq 9 \cdot 10^{-11}$ |

The fissioning of uranium bombarded with carbon was found to be
 $3,8 \cdot 10^3$ times more probable than the evaporation process of neu-
 trons from the intermediary nucleus Cf^{250} .

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56-24/47

Yield of Californium Isotopes Produced in the Interaction between
Carbon Isotopes and Uranium Nuclei

(With 1 table and 4 illustrations).

ASSOCIATION

Academy of Sciences of the USSR.
(Akademiya nauk SSSR)

PRESENTED BY

SUBMITTED

5.3.1957

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Card 2/2

FILIPPOVA, K. V.

SKANAVI, G.I., doktor fiz.-mat. nauk, otvetstvennyy red.; FILIPPOVA, K.V.,
kand. fiz.-mat. nauk; STAROKADOMSKAYA, Ye.L., red. izd-va;
ASTAF'YEVA, G.A., tekhn. red.

[Physics of dielectrics; proceedings of the All-Union Conference on
the Physics of Dielectrics, Dnepropetrovsk, August 1956] Fizika
dielektrikov; trudy Vsesoiuznoi konferentsii po fizike dielektrikov
(g. Dnepropetrovsk, avgust 1956 g.). Moskva, 1958. 245 p.
(MIRA 11:7)

1. Akademiya nauk SSSR. Fizicheskiy institut.
(Dielectrics)

AUTHOR: Filippova, K. V.

48-22-3-27/30

TITLE: Investigation of the Electric and Optical Properties of
"Electretized" Polymers (Issledovaniye elektricheskikh i
opticheskikh svoystv elektretirovannykh polimerov)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1958,
Vol. 22, Nr 3, pp. 343-351 (USSR)

ABSTRACT: 1) The author found that the optical properties of the
electrets from polymethylmetacrylate differ from the optical
properties of the initial material. Whereas polymethylmetacrylate
is amorphous in the initial state, it may obtain the properties
of an optically anisotropic substance by "Electretization".
2) It was found that the amount of optical anisotropy which
was caused by the effect of the electric field, depends on the
duration of "electretization". It was further found that the
anisotropy practically does not take place with an 1,5 to 2
hours lasting thorough heating. With a 4 to 6 hours lasting
thorough heating, a substantial increase in optical anisotropy
takes place. It attains its maximum value with a 4 to 6 hours
lasting thorough heating. A prolongation of the heating-period
up to from 8 to 9 hours does not cause any further increase of

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Investigation of the Electric and Optical Properties of
"Electretized" Polymers

48-22-3-27/30

the optical anisotropy. This shows that the structural change of the amorphous polymethylacrylate is finished under the action of the electric constant field at $T = T_g$. The dependence of the amount of optical anisotropy on the tension of the field was investigated. 3) The dependence of the electret properties of the samples on the duration of heating during the "electretization" process was investigated. It was found that the superficial charge density σ of the electrets changes according to the different duration of heating. Longer heating reduces the density of surface-charge σ with the formation of homogeneous electrets in strong fields. With the formation of heterogeneous electrets in weak fields, longer lasting heating increases the σ . All aforesaid changes of σ of the electrets may be explained by an increase in the heterogeneous charge. The latter, in its turn, can be explained by the increase of the "frozen" dipole-polarization P . 4) The relaxation processes of the electret-effect and of the optical anisotropy were investigated. The lacking of a correlation between these processes was found, which points to the difference of the mechanism. 5) It was presumed that the thermal orientational polarization of the dipole radicals

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Investigation of the Electric and Optical Properties of
"Electretized" Polymers

48-22-3-27/30

O COCH_3 is the decisive moment with the formation of the electret effect of the polymethylacrylate. It is also the fundamental cause for the formation of the optical effect. The latter ought, however, be correlated with the orientation of larger fields of the polymeric chain than the dipole radical. 6) The analysis of the experimentally obtained data allows the conclusion that the optical anisotropy formed due to the "electretization" process is not an absolute prerequisite for the existence of the electret effect, which corresponds to the results of investigation of the crystalline structure of wax electrets (refs. 5 to 7). 7) Investigations on the optical and electric properties of the "electretized" polystyrene carried out for the confirmation of the determining rôle of the dipole-polarization with the formation of the electret effect and of the optical anisotropy in the electret polymethylmetacrylate. The electrically obtained test results of polystyrene and of the co-polymer may be evaluated as a confirmation of the determining rôle of the dipole polarization with the formation of the electret effect in the polymers. The negative results of the optical

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Investigation of the Electric and Optical Properties of "Electretized" Polymers 48-22-3-27/30

investigation must be considered a confirmation of the formation mechanism of optical anisotropy in the polymethylmetacrylate proposed in the article.
There are 8 figures, 8 references.

ASSOCIATION: Moskovskiy gorodskoy pedinstitut im. V. P. Potemkina
(Moscow Municipal Pedagogical Institute imeni V. P. Potemkin)

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1. Electrets--Optical properties 2. Acrylic resins--Optical properties 3. Acrylic resins--Electrical properties 4. Polymethylmetacrylate--Optical properties 5. Polymethylmetacrylate--Electrical properties

Card 4/4

Filippova K. V.

AUTHORS: Tarantin, N. I., Gerlit, Yu. B., Guseva, L. I., 56-2-7/51
Myasoyedov, B. F., Filippova, K. V., Flerov, G. N.

TITLE: The Mass Distribution of Fission Products Produced by the
Irradiation of Gold and Uranium by Nitrogen Ions
(Raspredeleniye po masam produktov deleniya,
obrazuyushchikhsya pri obluchenii zolota i urana ionami
azota)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958,
Vol 34, Nr 2, pp 316-321 (USSR)

ABSTRACT: The present work investigates the mass spectrum of the
fission fragments of radon and einsteinium which are formed
in the irradiation of gold and uranium with nitrogen ions.
First the experimental method is discussed. Gold- and
uranium plates of a thickness of 30 μ were irradiated with
five-times charged nitrogen ions from a slit source at the
inner ray of an 150 cm cyclotron. The energy of the nitrogen
ions was 115 MeV. After the dissolution of the irradiated
target the different radioactive elements on the
corresponding carriers were dissolved. The radioactive

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The Mass Distribution of Fission Products Produced by the
Irradiation of Gold and Uranium by Nitrogen Ions

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isotopes were identified according to their half life. The relative yields of the nuclei identified this way are listed in a table. A diagram shows the yields of the nuclei given in this table as a function of the mass number A . The main part of the yield of fission products is concentrated within a comparatively narrow interval of mass numbers. The yield of fission fragments increases rather greatly with an increase of the mass number from 70 to 100, and with still greater mass numbers it decreases to the same extent. From the experimental values of the yields of single nuclei the total yields of the corresponding mass series (massovaya tsepochka) were computed. The additional taking into account of the yields of nuclei not identified in these experiments changes only little the character of the distribution of experimental points. The curve of the distribution of fission fragments in relation to the mass with the values $A = 85$ to 115 has the shape of a narrow peak with a half width of about 20 mass units. The yields of $Ga^{72,73}$, Se^{123} , Sb^{122} and the yields of the series of decays corresponding to these nuclei do not coincide with the monotonous course of the curve and are a little greater as normal. About 20

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The Mass Distribution of Fission Products Produced by the
Irradiation of Gold and Uranium by Nitrogen Ions

56-2-7/51

different isotopes were identified among the fission products forming in the irradiation of uranium with nitrogen ions. The yields of the accumulated nuclei are collected in a table. The fission of nuclei under the action of heavy particles can be represented by the following scheme: Formation of a compound nucleus, emission of neutrons and fission. The half width of the curve of the distribution of fission fragments on the mass is considerably smaller in the fission of radon than in the fission of einsteinium. There are 2 figures, 2 tables, and 10 references, 4 of which are Slavic.

SUBMITTED: August 20, 1957

AVAILABLE: Library of Congress

1. Gold-Irradiation
2. Uranium-Irradiation
3. Nitrogen ions-Applications
4. Isotopes-Determination

Card 3/3